

1 Mortality on Days 2 and 7 in CSF-I2 treated birds (38% and 56%, respectively) were
2 consistently lower than that found in the corresponding untreated control population (94%
3 and 97%, respectively).

4 Both treatment regimes utilizing 10 mg of CSF-I2 allowed birds to survive the
5 bacterial challenge better than the 5 mg CSF-I2 treatment regime (Figure 4). There was no
6 evidence, however, which showed that the additional administration of CSF-I2 on Day 1
7 initiated a significantly better response than the 2 day dose regime of 10 mg CSF-I2.

8 The blood levels of CD4 and CD8 cells in unchallenged SPF chickens of Trial 3
9 were 18 and 26%, respectively. The microbial challenge caused the Day 1 CD4 cell count to
10 decrease to 10%. Birds treated with CSF-I2, however, expressed a CD4 cell count of 21%.
11 There were no appreciable changes in CD8 levels due to CSF-I2 treatment. Differences
12 cannot be considered significant at this time because the sample size (and the high death
13 rate which made it impractical to follow the same birds) did not permit this determination.

14 I claim:

15 ~~1. The use of a composition of matter comprising the substantially immunoglobulin~~
16 ~~free, peptide containing portion of the blood of a mammal which passes through a~~
17 ~~dialysis membrane having a molecular weight cut-off of no greater than 60,000~~
18 ~~daltons to stimulate the disease fighting systems of a non-mammalian vertebrate.~~

19 2. The use of the composition of matter of claim 1 wherein the membrane has a
20 molecular weight cut-off of no greater than 25,000 daltons.

21 3. The use of the composition of matter of claim 1 wherein the membrane has a
22 molecular weight cut-off of no greater than 8,000 daltons.

23 4. The use of the composition of matter of claim 1 wherein the non-mammalian
24 vertebrate is a reptile, fish, bird or amphibian.

25 5. The use of the composition of matter of claim 1 wherein the non-mammalian
26 vertebrate is a fish.

27 6. The use of the composition of claim 1 wherein the non-mammalian vertebrate is a
28 bird.

29 7. The use of the composition of claim 6 wherein the bird is a chicken or turkey.

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8. The use of the composition of matter of claim 1 to stimulate the disease fighting systems of a bird against a challenge by *Pasteurella multocida*.

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